

**In the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1-9. (Cancelled).

10. (Currently Amended) An assay for detecting a mammalian troponin molecule in animal feed, the assay comprising:

a) extracting the mammalian troponin molecule from the animal feed to form an animal feed extract;

a) b) reacting the animal feed extract with a ligand that is specific for the mammalian troponin molecule and not specific for an avian troponin molecule for a time and under conditions sufficient to form a complex between the ligand and the mammalian troponin molecule; and

b) c) detecting the complex either directly or indirectly as a measure of the presence or amount of the troponin molecule in the animal feed; and, wherein the ligand is an antibody produced by immunizing an animal with a peptide having an amino acid sequence selected from the group consisting of SEQ ID NOS: 2-6, 9-13 and 15-35.

11. (Previously Presented) The assay of Claim 10, wherein the mammalian troponin molecule is a troponin I molecule.

12. (Previously Presented) The assay of Claim 10, wherein the mammalian troponin molecule is a troponin I molecule selected from the group consisting of a slow twitch skeletal muscle troponin I molecule and a fast twitch skeletal muscle troponin I molecule.

13. (Previously Presented) The assay of Claim 10, wherein the ligand is an antibody and the troponin molecule is a polypeptide.

14. (Cancelled).

15. (Previously Presented) The assay of Claim 10, wherein the ligand binds to a peptide having an amino acid sequence selected from the group consisting of SEQ ID NOS: 2-6, 9-13, and 15-35.

16. (Previously Presented) The assay of Claim 10, wherein the ligand binds to a nucleic acid molecule encoding a peptide having an amino acid sequence selected from the group consisting of SEQ ID NOS: 2-6, 9-13, and 15-35.

17. (Previously Presented) The assay of Claim 10, wherein the ligand is specific for an equine troponin I protein, a porcine troponin I protein or a bovine troponin I protein.

18. (Cancelled).

19. (Cancelled).

20. (Currently Amended) An assay for detecting a mammalian troponin molecule in animal feed, the assay comprising:

a) extracting the mammalian troponin molecule from the animal feed to form an animal feed extract;

a) b) reacting the animal feed extract with a ligand that is specific for the mammalian troponin molecule and not specific for an avian troponin molecule for a time and under conditions sufficient to form a complex between the ligand and the mammalian troponin molecule; and

b) c) detecting the complex either directly or indirectly as a measure of the presence or amount of the troponin molecule in the animal feed;

wherein the ligand is specific for an equine troponin I protein, a porcine troponin I protein or a bovine troponin I protein; and,

wherein the ligand is an antibody produced by immunizing an animal with a peptide having an amino acid sequence selected from the group consisting of SEQ ID NOS: 3-6, 9-13 and 15-35.